

IDAHO DEPARTMENT OF FISH & GAME

Jerry M. Conley, Director

Hagerman Hatchery

Annual Report



October 1, 1979 - September 30, 1980

by

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Hagerman Hatchery

ABSTRACT

This year the objective of Hagerman Hatchery, located in the Thousand Springs area of southern Idaho, was to raise 590,000 pounds of rainbow, brown, kamloops trout and coho salmon for streams, lakes and reservoirs throughout Idaho. The total number of these species actually raised and planted or transferred was 3,181,049 weighing 630,594 pounds, a record for this station. The capacity of the hatchery is rated at 600,000 pounds using 115 cfs of water.

It took 991,180 pounds of feed with a conversion of 1.57 pounds of feed to produce a pound of fish. The cost per pound of fish produced was \$.46.

Author:

Burton D. Ainsworth, Jr.
Fish Hatchery Superintendent III

OBJECTIVES

1. The objective of Hagerman Hatchery was to raise 590,000 pounds of rainbow, brown, kamloops trout and coho salmon for streams, lakes and reservoirs throughout Idaho.
2. To assist in increasing or maintaining harvest levels and populations of these species for fishing or recreational use in all waters of the state.

INTRODUCTION

Hagerman Hatchery is located in south central Idaho, in the Hagerman Valley near the Snake River, three miles southeast of the town of Hagerman. It receives its water supply from Tucker Springs and Riley Creek and requires 115 cfs of water to operate at full capacity.

The hatchery has 24 raceways 570 feet long, varying from 6 feet to 15 feet wide; 18 fingerling raceways, 2.5 feet x 100 feet, and 28 cement vats, 3 feet x 15 feet in the incubation building.

The hatchery is capable of rearing 600,000 pounds of salmonids.

FISH PRODUCTION

Rainbow Trout

Rainbow trout is the primary species raised at Hagerman Hatchery. At the start of the fish year on hand was 2,523,587 weighing 106,000 pounds and at the end of the fish year on hand was 1,652,491 weighing 44,000 pounds. The hatchery received 4,692,890 eyed eggs and planted or transferred 2,315,447 fish that weighed 559,902 pounds. The eyed eggs were received from Caribou Trout Company, Troutlodge, American Falls Hatchery, and Mount Whitney Hatchery.

Brown Trout

Another species handled at the hatchery was brown trout. We received 181,116 eyed eggs, and planted 61,412 fingerlings that weighed 442 pounds.

Kamloops Trout

We had on hand from Clark Fork Hatchery during the present fish year, a group of kamloops trout. We began the fish year with 166,282 small fingerlings and we transferred the fish back to Clark Fork Hatchery after five months. There were 100,650 fingerlings that weighed 1,650 pounds returned.

Coho Salmon

Klaskanine Fish Hatchery (Oregon) supplied this station with 771,408 eyed coho salmon eggs. From these eggs, 495,400 fingerlings weighing 5,800 pounds were planted.

FISH HEALTH

This year the disease nemesis was Infectious Pancreatic Necrosis. This is a viral disease that caused a major loss of fingerling trout. The estimated losses of rainbow trout was 1,500,000. The only known control at this time is to spread the fish as much as possible to relieve crowded conditions, which was accomplished

whenever possible.

Some losses were experienced to Bacterial Gill Disease. Periodically a Bacterial Gill Disease outbreak occurred as the fish began to outgrow the capacity of the raceway. The number of mortalities were approximately 100,000. The treatment for this disease was cleaning the raceways as much as possible and using a flush treatment with Purina 4X or a combination of Purina 4X and Cutrine.

In the small fish (0-3 inches), usually in the incubation building, some problems have occurred with the protozoan, "Costia". Losses from this disease were approximately 150,000 and a treatment of salt and formalin usually took care of the problem.

The incidence of Enteric Red Mouth (bacterial) was not high this year. We experienced losses of approximately 50,000 fish. The holdover rainbow trout for next year are all being vaccinated with ERM Bacterin, in an effort to control the disease.

A disease that occurs in the coho salmon, is coagulated egg sac. Rearing the cold water salmon in warmer water, such as the water supply at Hagerman, causes the problem in some of the fish. Losses of 200,000 coho occurred prior to absorption of the egg sac and swim-up.

One problem, not specifically a disease but results in loss, is bird predation. The approximate number of mortalities that occur from seagulls, night herons, and ducks were 250,000 fish. There are some pond covers but only enough for the smaller fish.

FISH TRANSFERS

Table 1 includes all transfers from Hagerman Hatchery to other stations.

FISH RELEASES

The following are totals planted in the different regions of the state from Hagerman Hatchery.

Region 1

Rainbow trout - 10,080 -- 2,400 pounds

Region 2

Rainbow trout -232,690 --69,800 pounds

Region 3

Rainbow trout -215,997 --78,475 pounds

Region 4

Rainbow trout -651,231 --139,102 pounds

Brown trout - 61,412 -- 442 pounds

Coho salmon - 10,400 -- 100 pounds

Region 5

Rainbow trout - 182,080 -- 34,700 pounds

Region 6

Rainbow trout - 433,411 -- 81,547 pounds

Coho salmon - 485,000 -- 5,700 pounds

Total - 2,282,301 -- 412,266 pounds

SPAWNTAKING OPERATIONS

The only spawntaking operation the Hagerman Hatchery personnel were involved in was the kokanee salmon trap on the South Fork of the Boise River near Pine. The personnel assist with the installation of the trap, removal of the trap, sorting kokanee, and spawning kokanee. The eggs were taken to Eagle Hatchery and kept there until planting.

FISH FEED UTILIZED

The fish feed used by Hagerman Hatchery came from Rangens Inc., Clear Springs Trout Company and Clarks. The following is a list of the sizes and cost of fish feed used:

Starter	100 pounds	\$ 26.81
#1 Fry Feed	650 pounds	159.99
#2 Fry Feed	1,350 pounds	346.28
#3 Fry Feed	13,200 pounds	3,304.70
#4 Fry Feed	21,950 pounds	4,282.94
Fine Crumbles	45,200 pounds	8,574.70
3/32 pellets	69,870 pounds	13,091.54
4/32 pellets	169,420 pounds	30,265.02
5/32 pellets	669,040 pounds	119,490.54
Moist pellets	400 pounds	127.20
Total	991,180	\$179,669.72

The total number of pounds of feed fed was 991,180

The total cost of the feed was \$179,669.72

The total number of pounds of fish produced was 630,594

A conversion of 1.57 pounds of feed to produce a pound of fish

The cost per pound of fish produced was \$.46

Table 1. Fish transfers from Hagerman Hatchery, October 1, 1979 - September 30, 1980

Date	Species	Receiving Station or water	Number	Pounds	Size at release
10/22/79	Rainbow	Eagle	5,760	2,400	2.4/lb - 9-11"
10/31/79	Rainbow	Clark Fork	52,920	4,900	10.8/ lb .. 5-7"
11/2/79	Rainbow	Eagle	111,640	2,400	6A1/lb - 6-8"
11/5/79	Kamloops	Clark Fork	100,650	1,650	61/lb 3-4"
12/1/80	Rainbow	Kamiah	11,610	2,700	4.3/lb. 8-9"
4/28/80	Rainbow	Kamiah	4,320	2,700	1.6/lb •• 10-12 ⁿ
5/5/80	Rainbow	Kamiah	6,720	2,400	2.8/lb .. 9-11"
5/15/80	Rainbow	Eagle	6,210	2,700	2.3/lb . 9-11"
5/19/80	Rainbow	Eagle	18,200	7,000	2.6/lb - 9.11"
5/20/80	Rainbow	McCall	7,920	3,600	2.2/lb .. 9-11"
5/20/80	Rainbow	McCall	5,940	2,700	2.2/lb .. 911"
5/20/80	Rainbow	McCall	7,920	3,600	2,2/1b - 9-11"
5/28/80	Rainbow	Kamiah	9,720	2,700	3.6/lb - 8-10"
6/2/80	Rainbow	Kamiah	9,180	2,700	3.4/lb - 8-10"
6/4/80	Rainbow	Eagle	19,530	6,300	3.1/lb - 8-10"
6/10/80	Rainbow	McCall	7,560	2,700	2.8/lb - 9-10"
6/16/80	Rainbow	Kamiah	9,450	2,700	3.5/lb - 8-10"
6/16/80	Rainbow	McCall	14,400	3,600	4.0/lb - 8-9"
6/16/80	Rainbow	Clark Fork	19,530	6,300	3.1/lb - 8-10"
6/19/80	Rainbow	Eagle	23,940	6,300	3.8/lb - 8.a0"
6/23/80	Rainbow	Kamiah	9,180	2,700	3.1./1 b - 8-10"
6/23/80	Rainbow	McCall	25,200	6,300	4.0/lb .. 8-9"
6/25/80	Rainbow	Eagle	25,200	6,300	4.0/lb - 8-9 ⁿ
7/8/80	Rainbow	Kamiah	8,910	2,700	3.3/lb -8-10"
7/8/80	Rainbow	Eagle	13,680	3,600	3.8/lb - 8-10"

Table 1 contd.

Date	Species	Receiving Station or water	Number	Pounds	Size at release
7/10/80	Rainbow	McCall	12,960	3,600	3.6/lb - 8-10"
7/11+/80	Rainbow	Eagle	11,520	2,700	4.3/lb - 8-9"
7/17/80	Rainbow	Eagle	5,670	2,700	2.1/lb - 9-11"
7/17/80	Rainbow	Eagle	17,010	2,700	6.3/lb - 7-8"
7/17/80	Rainbow	McCall	24,570	6,300	3.9/lb - 8-10"
7/21/80	Rainbow	Clark Fork	24,570	6,300	3.9/lb - 8-10"
7/24/80	Rainbow	Eagle	9,450	2,700	3.5/lb - 8-10"
7/28/80	Rainbow	Eagle	21,840	5,600	3.9/lb - 8-10"
7/25/80	Rainbow	McCall	10,530	2,700	3.9/lb - 8-10"
8/12/80	Rainbow	Eagle	10,800	2,700	4.0/lb - 8-9"
8/12/80	Rainbow	McCall	10,800	2,700	4.0/lb - 8-9"
8/15/80	Rainbow	American Falls	22,680	600	37.8/lb - 3-5"
8/19/80	Rainbow	Eagle	11,070	2,700	4.1/lb - 8-9"
9/3/80	Rainbow	American Falls	6,840	1,800	3.8/lb - 8-10"
9/15/80	Rainbow	Clark Fork	22,050	6,300	3.5/lb - 8-10"
Totals			660,650	145,750	

HATCHERY IMPROVEMENTS

The addition of a new four stall metal equipment shed was constructed by hatchery personnel after the foundation was poured by the construction crew.

The continued use of the upwelling egg incubation containers in the incubation building and their improvement has helped facilitate the handling of eggs and fry.

The experimental use of demand feeders continued this year, being used mostly for supplemental feeding.

SPECIAL STUDIES

Special studies included fin clipping 40,000 catchable rainbow trout in the spring, and another 40,000 catchable rainbow in the early fall for planting in Cascade Reservoir. The purpose of the study was to find out where the fish were going and whether the spring or fall plant returned more fish to the creel.

MISCELLANEOUS ACTIVITIES

The hatchery personnel were involved in two fish salvage operations this year. A fly fishermens' club from Boise caught bass and bluegill in Sand Dunes Lake and the hatchery personnel transported them to Sterling Gravel Ponds.

The second salvage operation was from a private pond in Owyhee County. Two of the hatchery personnel assisted with salvaging bass and transported them to the Sterling Gravel Ponds, Springfield Lake and Market Lake.

The hatchery personnel were also involved in Sage Grouse check stations and assisting Conservation Officers with the opening of deer season.

Several high school science classes and grade school classes were given a tour of the hatchery.

An estimated 38,000 people visited the hatchery this year, involved in looking, fishing or hunting in the immediate area.

HATCHERY NEEDS

On the drawing board at the end of the fish year were plans for the construction of a wire network across the larger raceways to help alleviate the bird predation problem.

ACKNOWLEDGMENTS

Hatchery staffing during the fish year included Bud Ainsworth, Fish Hatchery Superintendent III; Bill Doerr, Fish Hatchery Superintendent I; Dave Billman, Fish Culturist; Doug Knifong, Fish Culturist; Ted Choules, Biological Aid; Debbie Manning and Sonia Uppiano, Laborers and Cheryl Silva CETA employee. Also for a six month period, the Fish Transport Operators, Bill Fiscus and Ralph Taylor.